Exce					PTO/SB/21 (08-03			
2004 75		Applic	ation Number	10/6	602,548			
TRANSMITTAL			Filing Date		June 23, 2003			
FORM			First Named Inventor		Tang, Hongxing			
(to be used for all correspondence after initial filing)		Art Unit		2518				
		Examiner Name		Unassigned				
Total Number of Pages in This ,Submission		Attorney Docket Number		009195-000520US				
ENCLOSURES (Check all that apply)								
Fee Transmittal Form	☐ Drawin	g(s)		After Allowance Communication to Group				
Fee Attached	Licensin		ng-related Papers		Appeal Communication to Board of Appeals and Interferences			
Amendment/Reply	ı			Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)				
After Final	n to Conv onal App			Proprietary Information				
Affidavits/declaration(s)		ey, Revocation espondence Address		Status Letter				
Extension of Time Request	ent Under 35 CFR 3.73(b)		Other Enclosure(s) (please identify below):					
Express Abandonment Request		st for Refund Imber of CD(s)		Return Postcard				
Information Disclosure Statement								
Certified Copy of Priority Document(s)			The Commissioner is authorized to charge any additional fees Account 20-1430.					
Response to Missing Parts/ Incomplete Application								
Response to Missing Parts under 37 CFR 1.52 or 1.53								
			ICANT, ATTORNEY,	OR A	AGENT			
Firm Townsend and T or Individual Gerald T. Gray	ownsend a	nd Crew	/ LLP Reg. N	o. 41,	797			
Signature Mash T.	May							
Date January 5 , 2004								
	CERTIFIC	ATE OF	TRANSMISSION/M	AILIN	G			
I hereby certify that this correspondence is being as first class mail in an envelope addressed to: C					nited States Postal Service with sufficient postage 2313-1450 on the date shown below.			
Typed or printed name Sylvia E. Ar	nold							
Signature	old		Da	te January 5 , 2004				
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POWER OF ATTORNEY OR

AUTHORIZATION OF AGENT

10/602,548 Application Number June 23, 2003 Hongxing Tang et al. **First Named Inventor** SENSORS BASED ON GIANT PLANAR HALL EFFECT IN DILUTE Title MAGNETIC SEMICONDUCTORS 2818 Art Unit Unassigned **Examiner Name** 009195-000520US **Attorney Docket Number**

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		GNATURE of Applica	ant or As	signee of Record	<u></u>	
Name	Adam Cochran	PARAMY CAUSACT		0/11	6	
Signature	The intellectual F	roperty Counsel		- me		
Date	DEC 15 2003			Telephone		
	es of all the inventors or assig an one signature is required, s		e interest	or their representative	(s) are required. Sub	mit multiple
*Total of	forms are submitte					

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket No. 2004 C. 2005 C. 200

STATEMENT HNDER 37 CER 3 73/51

Applicant/Patent Owner: Hongxing Tang and Michael L. Roukes
Application No./Patent No.: 10/602,548 Filed/Issue Date: June 23, 2003
Entitled: SENSORS BASED ON GIANT PLANAR HALL EFFECT IN DILUTE MAGNETIC SEMICONDUCTORS
California Institute of Technology , a University
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)
states that it is:
1. X the assignee of the entire right, title, and interest; or
 an assignee of less than the entire right, title and interest. The extent (by, percentage) of its ownership interest is%
in the patent application/patent identified above by virtue of either:
A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.
OR
B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:
To: The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.
2. From: To : The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached. Additional documents in the chain of title are listed on a supplemental sheet.
Copies of assignments or other documents in the chain of title are attached. [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8]
The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.
DEC 15 2003
Date Types or extract hame
626-395-4567
Telephone number Signature Adam Cochran
The Intellectual Property Counsel Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Attorney Docket No.: 009195-000520US

Client Reference No.: CIT-3871

ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Hongxing Tang of 195 S. Wilson Avenue, #11, Pasadena, CA 91106 and Michael L. Roukes of 1420 San Pasqual, Pasadena, CA 91106 hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

SENSORS BASED ON GIANT PLANAR HALL

EFFECT IN DILUTE MAGNETIC

SEMICONDUCTORS

Date(s) of execution of Declaration:

Filing Date:

June 23, 2003

Application No.:

10/602,548; and

WHEREAS, California Institute of Technology, located at California Institute of Technology, 1201 East California Blvd., Mail Code 305-6, Pasadena, CA 91125, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignment

Attorney Docket No.: 009195-000520US

Page 2

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates

indicated.

Dated: $\sqrt{0}/\sqrt{7}/\sqrt{0}$

Hongxing Tang

Dated: 10/17/03

Michael L. Roukes

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